

WHAT IS CLAIMED IS:

1. An SRAM comprising:
  - a substrate;
  - a pair of cross-coupled driver transistors formed over the substrate;
  - a pair of access transistors;
  - a pair of bit lines electrically connected to the cross-coupled driver transistors through the access transistors, respectively; and
  - a bit line electrically connected to the pair of access transistors,wherein at least each of the cross-coupled driver transistors comprises a crystalline semiconductor film formed on an insulating surface over the substrate, said crystalline semiconductor film having a mono domain region in which a channel formation region is formed.
2. The SRAM according to claim 1 wherein said mono-domain region includes substantially no grain boundary.
3. The SRAM according to claim 1 wherein any grain boundary included in said mono-domain region is electrically inactive.

4. An SRAM comprising:

a substrate;

a pair of cross-coupled driver transistors formed over the substrate;

a pair of access transistors;

a pair of bit lines electrically connected to the cross-coupled driver transistors through the access transistors, respectively; and

a bit line electrically connected to the pair of access transistors,

wherein at least each of the access transistors comprises a crystalline semiconductor film formed on an insulating surface over the substrate, said crystalline semiconductor film having a mono domain region in which a channel formation region is formed.

5. The SRAM according to claim 4 wherein said mono-domain region includes substantially no grain boundary.

6. The SRAM according to claim 4 wherein any grain boundary included in said mono-domain region is electrically inactive.

7. An SRAM comprising:

a substrate;

a pair of cross-coupled driver transistors formed over the substrate;

a pair of access transistors;

a pair of bit lines electrically connected to the cross-coupled driver transistors through the access transistors, respectively; and

a bit line electrically connected to the pair of access transistors,

wherein at least each of the cross-coupled driver transistors comprises a crystalline semiconductor film formed on an insulating surface over the substrate, said crystalline semiconductor film having a mono domain region in which a channel formation region is formed, and

wherein a crystallization direction of said crystalline semiconductor film is substantially in parallel with a major surface of the substrate.

8. The SRAM according to claim 7 wherein said mono-domain region includes substantially no grain boundary.

9. The SRAM according to claim 7 wherein any grain boundary included in said mono-domain region is electrically inactive.

10. An SRAM comprising:

a substrate;

a pair of cross-coupled driver transistors formed over the substrate;

a pair of access transistors;

a pair of bit lines electrically connected to the cross-coupled driver transistors through the access transistors, respectively; and

a bit line electrically connected to the pair of access transistors,

wherein at least each of the access transistors comprises a crystalline semiconductor film formed on an insulating surface over the substrate, said crystalline semiconductor film having a mono domain region in which a channel formation region is formed, and

wherein a crystallization direction of said crystalline semiconductor film is substantially in parallel with a major surface of the substrate

11. The SRAM according to claim 10 wherein said mono-domain region includes substantially no grain boundary.

12. The SRAM according to claim 10 wherein any grain boundary included in said mono-domain region is electrically inactive.

13. An SRAM comprising:

a substrate;

an insulating film formed on the substrate, said insulating film having a protrusion extending in one direction;

a pair of cross-coupled driver transistors formed over the substrate;

a pair of access transistors;

a pair of bit lines electrically connected to the cross-coupled driver transistors through the access transistors, respectively; and

a bit line electrically connected to the pair of access transistors,

wherein at least each of the cross-coupled driver transistors comprises a crystalline semiconductor film formed on the insulating film, said crystalline semiconductor film

having a mono domain region in which a channel formation region is formed.

14. The SRAM according to claim 13 wherein said mono-domain region includes substantially no grain boundary.

15. The SRAM according to claim 13 wherein any grain boundary included in said mono-domain region is electrically inactive.

16. An SRAM comprising:

a substrate;

an insulating film formed on the substrate, said insulating film having a protrusion extending in one direction;

a pair of cross-coupled driver transistors formed over the substrate;

a pair of access transistors;

a pair of bit lines electrically connected to the cross-coupled driver transistors through the access transistors, respectively; and

a bit line electrically connected to the pair of access transistors,

wherein at least each of the access transistors comprises a crystalline semiconductor film formed on the insulating film, said crystalline semiconductor film having a mono domain region in which a channel formation region is formed.

17. The SRAM according to claim 16 wherein said mono-domain region includes substantially no grain boundary.

18. The SRAM according to claim 16 wherein any grain boundary included in said mono-domain region is electrically inactive.

19. A mobile computer comprising the SRAM according to claim 1.

20. A head-mount display comprising the SRAM according to claim 1.

21. A motor vehicle navigation comprising the SRAM according to claim 1.

22. A mobile phone according comprising the SRAM according to claim 1.

23. A video camera comprising the SRAM according to claim 1.

24. A projector comprising the SRAM according to claim 1.

25. A head-mount display comprising the SRAM according to claim 4.

26. A motor vehicle navigation comprising the SRAM according to claim 4.

27. A mobile phone according comprising the SRAM according to claim 4.

28. A video camera comprising the SRAM according to claim 4.

29. A projector comprising the SRAM according to claim 4.

30. A mobile computer comprising the SRAM according to claim 4.



31. A head-mount display comprising the SRAM according to claim 7.

32. A motor vehicle navigation comprising the SRAM according to claim 7.

33. A mobile phone according comprising the SRAM according to claim 7.

34. A video camera comprising the SRAM according to claim 7.

35. A projector comprising the SRAM according to claim 7.

36. A mobile computer comprising the SRAM according to claim 7.

37. A head-mount display comprising the SRAM according to claim 10.

38. A motor vehicle navigation comprising the SRAM according to claim 10.

39. A mobile phone according comprising the SRAM according to claim 10.

40. A video camera comprising the SRAM according to claim 10.

41. A projector comprising the SRAM according to claim 10.

42. A mobile computer comprising the SRAM according to claim 10.

43. A head-mount display comprising the SRAM according to claim 13.

44. A motor vehicle navigation comprising the SRAM according to claim 13.

45. A mobile phone according comprising the SRAM according to claim 13.

46. A video camera comprising the SRAM according to claim 13.

47. A projector comprising the SRAM according to claim 13.

48. A mobile computer comprising the SRAM according to claim 13.

49. A head-mount display comprising the SRAM according to claim 16.

50. A motor vehicle navigation comprising the SRAM according to claim 16.

51. A mobile phone according comprising the SRAM according to claim 16.

52. A video camera comprising the SRAM according to claim 16.

53. A projector comprising the SRAM according to claim 16.

54. A mobile computer comprising the SRAM according to claim 16.